

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

Interim Strategy on Section 7 Consultations under the
Endangered Species Act for Watercraft Access Projects in
Florida That May Indirectly Affect the Florida Manatee

AGENCY: Fish and Wildlife Service, Interior

ACTION: Final interim strategy document

SUMMARY: We, the Fish and Wildlife Service (Service), announce the final interim strategy to comply with the provisions of the Endangered Species Act of 1973, as amended (ESA), on actions resulting in increased watercraft access in Florida. This final interim strategy represents our guidance regarding conservation measures that should be incorporated into watercraft access facility designs in order that, in some cases, projects would not likely cause incidental take of the Florida manatee (Trichechus manatus). This final interim strategy document does not address all of the ways in which a watercraft access project could have indirect effects which constitute an incidental take of manatees as defined by the ESA and Marine Mammal Protection Act (MMPA). Instead, this final interim strategy document focuses on one particular form of potential incidental take--the increased likelihood of manatee mortalities and injuries as a result of collisions with watercraft.

We believe that increased manatee speed zone enforcement is the primary conservation measure through which proposed projects could reduce the incidental take associated with watercraft collisions to an unlikely to occur level. Since publication of the draft interim strategy, we have become aware that the State of Florida has refocused its existing law enforcement efforts, as well as deployed additional law enforcement officers specifically to enforce manatee protection laws. The State's law enforcement initiative will result in a more effective means to address the indirect effects of watercraft access development on manatees. We, therefore, have modified the draft interim strategy to eliminate the contribution because the State has come forward with an initiative that resolves law enforcement issues in manatee waters and we have determined that the contribution portion of the interim strategy is no longer necessary. As appropriate, we considered and incorporated comments received during the public review period in order to finalize the interim strategy.

ADDRESSES: Comments and materials received, as well as supporting documentation used in preparation of this document, will be available for public inspection, by

appointment, during normal business hours at the South Florida Ecological Services Office, 1339 20th Street, Vero Beach, Florida 32960.

FOR FURTHER INFORMATION CONTACT: Kalani Cairns, telephone 561/562-3909 extension 240, facsimile 561/562-4288, or electronic mail at verobeach@fws.gov.

SUPPLEMENTARY INFORMATION:

Background

A coalition of environmental and animal rights groups sued us and the U.S. Army Corps of Engineers (Corps) in January 2000. This lawsuit claimed that we were not fulfilling our obligations to protect the endangered Florida manatee under the ESA and the Marine Mammal Protection Act (MMPA). Settlement of the *Save the Manatee Club et al v. Ballard* case in January 2001 avoided unnecessary litigation. In the settlement, we agreed to a general time line for accomplishing specific tasks including publishing a revised manatee recovery plan; completing a review of and publishing our decision regarding federal designation of manatee protection areas; developing and publishing Incidental Take Regulations pursuant to the MMPA; and addressing shortfalls in law enforcement.

On March 14, 2001, we announced the availability of a draft interim strategy to comply with the provisions of the ESA on actions resulting in increased watercraft access in Florida (66 FR 14924). This draft interim strategy represented our guidance regarding conservation measures that could be incorporated into watercraft access facility designs such that, in some cases, projects would not likely cause incidental take of the Florida manatee. We called this document an "interim" strategy because it was designed to provide guidance relating to the indirect effects of watercraft access development on manatees only during the time period while incidental take regulations under the MMPA were being promulgated.

The draft interim strategy was not designed as a means to allow projects to circumvent formal consultation under section 7 of the ESA, which is required whenever a project is likely to adversely affect a federally-listed species or its critical habitat. We will continue to fulfill our section 7 consultation responsibilities regarding the Florida manatee. All determinations made during informal and formal consultation will be made in accordance with the ESA, our regulations implementing section 7 (50 CFR Part 402), and our March 1998 Endangered Species Consultation Handbook.

The draft interim strategy document reflected our findings on the conditions under which we could conclude that a proposed watercraft access facility is unlikely to cause a "take" of manatees, as defined in the ESA §3(18) and 50 CFR §17.3. It also included measures that an individual seeking permission to build a watercraft access facility could incorporate into the design of a project in order to reduce the likelihood of incidental take to a level of not likely to occur.

The draft interim strategy document did not authorize incidental take of manatees. Incidental take of manatees without authorization is unlawful and such authorization cannot occur until and unless we issue appropriate regulations under the MMPA. It is also important to stress that the draft interim strategy document did not address all of the ways in which a watercraft access project could have indirect effects which constitute an incidental take of manatees as defined by the ESA and MMPA. However, we must consider, as with all consultations, other direct and indirect effects to the manatee and its habitat, such as sea grasses.

ESA regulations require the Federal action agency to submit a description of the effects of the action on the listed species and/or its habitat and an analysis of any cumulative effects. a thorough analysis of the effects of the proposed action on manatees, manatee habitat, and manatee critical habitat.

Instead, the draft interim strategy document focused on one particular form of potential incidental take, that is, the increased likelihood of manatee mortalities and injuries as a result of collisions with watercraft. Watercraft-related mortality is the number one cause of human-related manatee deaths. Adult survival rates are one of the key criteria we consider in gauging success of our recovery efforts, and we believe that an increased presence of on-the-water speed zone enforcement is the most effective means to significantly impact overall adult manatee survival rates.

Previous Federal Action

On March 14, 2001, we published in the Federal Register (66 FR 14924) a notice of availability of a draft interim strategy on section 7 consultations under the ESA for watercraft access projects in Florida that may indirectly affect the Florida manatee. In addition, we held eight public meetings throughout Florida in the following locations--Miami on April 16, 2001; Fort Myers on April 17; St. Petersburg on April 18; Marco Island on April 19;

Jacksonville on April 23; Daytona Beach on April 24; Melbourne on April 25; and West Palm Beach on April 26. The comment period closed on May 14, 2001.

In the Federal Register notice, we requested information, views, and opinions from the public related to this draft interim strategy, the supporting analyses, and proposed implementation. We contacted State and Federal agencies, Tribes, county governments, scientific organizations, and other interested parties and invited them to comment. In addition, we published notices announcing the public meetings and inviting public comments in the following newspapers-- Bradenton Herald, Charlotte Sun Herald, The Citizen (Key West), Citrus County Chronicle, Florida Today (Brevard County), Florida Times-Union (Jacksonville), Fort Pierce Tribune, Miami Herald, Naples Daily News, News Herald (Panama City), News Journal (Daytona Beach), News-Press (Fort Myers), Orlando Sentinel, Palatka Daily News, Palm Beach Daily Business Review, Palm Beach Daily News, Palm Beach Post, Press Journal (Vero Beach), Sarasota Herald-Tribune, South Florida Sun-Sentinel (Ft. Lauderdale), St. Augustine Record, St. Petersburg Times, Stuart News, Tallahassee Democrat, and the Tampa Tribune.

Summary of Comments and Recommendations

We received approximately 2,000 written and oral comments pertinent to the draft interim strategy from elected officials, individuals, government agencies, private industries, and organizations. In general, public comment on the draft interim strategy was supportive of the law enforcement concept, but was not supportive of the process.

Following is a summary of the comments received. Comments of a similar nature have been grouped together.

Comment 1: The Florida Fish and Wildlife Conservation Commission (Commission) and other commenters were concerned that the draft interim strategy would not be effective in counties where comprehensive manatee speed zones are not yet established and that the draft interim strategy does not provide alternatives for applicants if additional speed zones cannot be established.

Response: We recognize that some counties do not have established manatee speed zones. In developing the draft interim strategy, we assessed regional manatee populations, manatee ecology, and watercraft-related manatee mortality to determine relative risk of watercraft-related manatee losses and have delineated three relative risk areas throughout Florida. We defined these risk areas (= counties) as high (averaged one or more watercraft-related manatee mortalities

per year during the past ten years); medium (averaged less than one, but more than zero, watercraft-related manatee mortality per year during the same time period); and low (no documented watercraft-related mortality). In addition to these risk areas, we have developed a reach-by-reach analysis, outlined in the response to Comment 4, in evaluating a watercraft access project's effects on manatees.

Of the 14 Florida counties totally within high risk manatee areas, four counties currently have either no speed zones or only site-specific speed zones. Within these counties, where speed zones are currently lacking or inadequate, it must be shown that appropriate speed zones are in place in the areas anticipated to be affected by a project, speed zone signage is adequate throughout these areas, and that adequate levels of speed zone enforcement will occur throughout these areas before we can determine that a proposed watercraft access facility is unlikely to cause incidental take of manatees.

These types of determinations will need to be made on a case-by-case basis, that is, based on the specific circumstances and conservation needs present in the area. If it is determined that the existing speed zones are not adequate to reduce incidental take to an unlikely to occur level or that the speed zones will not be adequately enforced even with conservation measures incorporated into the project design, we would not be able to conclude that the project is not likely to incidentally take manatees through watercraft collisions.

Of the 15 counties in medium risk areas only, nine have countywide or site-specific speed zones. The remaining six medium risk counties have no enforceable speed zones. As with high risk counties, we will make case-by-case determinations as to whether a project is likely to contribute to the incidental take of manatees through watercraft collisions, in light of manatee mortality history and trends in the area, as well as any conservation measures incorporated into the project's design. In those areas where speed reduction is necessary yet no speed zones currently exist and/or speed zones will not be sufficiently enforced to render watercraft collisions in the affected area unlikely to occur (despite any conservation measures incorporated into the project's design), we believe that we would not be able to concur with a determination that the project is not likely to adversely affect manatees.

Comment 2: The Commission and other commenters were also concerned that the draft interim strategy does not consider land use decisions, local Manatee Protection Plans,

or other state or local conservation laws as solutions to reducing watercraft-related manatee mortality.

Response: We consider land use decisions the responsibility of local governments and not the Federal government. Although we do consider land use decisions, local Manatee Protection Plans, and other state or local conservation laws, in the section 7 process in evaluating a watercraft access project's effects on manatees, these local land planning tools may or may not affect the final outcome of a biological rationale presented in a Service concurrence letter or biological opinion. While land use decisions are not the responsibility of the Federal government, we recognize the right of local and State governments to be more restrictive in imposing measures for manatee conservation, and recommend that proposed projects comply with such measures. The draft interim strategy provided a way to guide projects to include offsetting measures, specifically increased law enforcement, that applicants could use to reduce the likelihood of incidental take of manatees. Instead of concentrating on local decisions and law, the focus of the draft interim strategy was on appropriately located manatee speed zones that are adequately posted, coupled with sufficient levels of law enforcement in place before the project moved forward.

Comment 3: The Commission and other commenters believe the draft interim strategy encourages a piecemeal approach to establishing and posting manatee speed zones based on the needs of a single project rather than on an ecosystem level.

Response: Contrary to a piecemeal approach, we viewed the draft interim strategy as a statewide approach to evaluating the potential effects of new watercraft access projects on manatees and their habitat. The draft interim strategy did not authorize incidental take of manatees and incidental take is unlawful without authorization and such authorization cannot occur without appropriate regulations under MMPA. The draft interim strategy provided conservation measures, primarily increased manatee speed zone enforcement statewide, to ensure that the incidental take of manatees associated with new watercraft access facilities was reduced to an unlikely to occur level. In addition, the draft interim strategy established four prerequisites (adequate speed zone designations, signage, and on-the-water enforcement, including the requirement that such measures be in place prior to project implementation) which must be evaluated prior to concluding that incidental take was unlikely to occur.

Multi-slip projects are evaluated on a case-by-case basis in medium and high risk counties to determine whether

a proposed watercraft project is likely to result in the incidental take of manatees or whether specific conditions in the project area as well as measures incorporated into the project's design are such that we can reasonably conclude that the project is not likely to result in the incidental take of manatees.

Overall, we believe that the State and other law enforcement initiatives as well as the continuing analysis (as new information becomes available) to evaluate the adequacy of manatee speed zones will result in an effective statewide means to address the indirect effects referenced by the draft interim strategy on manatees on a landscape-scale.

Comment 4: The Commission and other commenters stated that the draft interim strategy does not identify a method or criteria for determining the adequacy of a speed zone, signage, and/or enforcement.

Response: While the draft interim strategy does not set forth criteria for determining the adequacy of speed zone designations, signage and/or enforcement, we do include the basis for our determinations in our concurrence letters and biological opinions to the Army Corps of Engineers' (Corps). In making these determinations, we rely on the best scientific and commercial data available, including manatee mortality data for a particular area, potential impacts to manatee habitat such as seagrasses, information regarding boater compliance with speed zones in the area, the anticipated beneficial effect of any conservation measures incorporated into the project's design, including the degree to which such measures are anticipated to increase speed zone enforcement in the area, etc. We will continue to rely on these and other site-specific criteria such as watercraft and manatee travel patterns, as available, to make determinations on the adequacy of speed zones, signage and/or enforcement.

Recognizing the responsibilities and commitments by both agencies on many overlapping issues regarding the manatee, we are currently working with the Commission and local governments to ensure speed zone placement, signage, and enforcement are or will be appropriate and adequate. While manatee mortality in some areas has been high, we expect that the State's law enforcement initiative will help reduce incidental take as the result of watercraft collisions.

We accept this comment as a valid concern and have modified the interim strategy to incorporate manatee speed zone criteria in the Reach-by-Reach analysis already

conducted by us as well as any new information that becomes available during project review.

To analyze the effects of watercraft access projects on manatees, we reviewed the baseline conditions for each of the manatee subpopulations by county and by "reach" based on a combination of information available to us including the Corps' Reach Characterization Analysis Geographic Information System (GIS) database. We used counties as a basic geographic analysis area because many factors important to manatee protection are provided at the county level. Manatee Protection Plans are produced by counties, manatee speed zones are designated by the State with county participation or by counties on a county level, and county sheriff's departments provide enforcement within county boundaries. These factors make county-by-county and reach-by-reach review the most logical and manageable way to analyze data and provide recommended courses of action. This county-by-county and reach-by-reach review approach provides a more holistic evaluation of speed zones than a piecemeal project-by-project review.

To evaluate the adequacy of existing manatee speed zones throughout Florida, we used information from the Corps' Reach Characterization Analysis combined with the most current information available regarding manatee use, manatee habitat, manatee mortality and harassment. The Corps compiled existing data relevant to the evaluation of the potential effects of watercraft access projects on manatees. The information contained in the Reach Characterization Analysis included manatee use data such as aerial surveys and radio telemetry; manatee habitat characteristics such as warmwater sites, seagrass distribution, and bathymetry; human use characteristics such as relative dock densities, boat densities, and navigation channels; and existing manatee protection measures (boating speed zones). Throughout Florida, the Corps defined 80 "reaches" based on manatee use, manatee habitat characteristics, and human use characteristics. The Corps compiled this information into its GIS database.

In some areas, we feel that changes of the Corps reach boundaries would provide a better characterization of the effects of regulated activities on manatees, and our analysis reflects these recommendations. We view the Reach Characterization Analysis as a dynamic process, and will continue to recommend changes to Corps reaches based on new information regarding manatees, boating activities, and the interaction of manatees and boating that affect manatees. To ensure the use of the best scientific and commercial data available, we supplemented the Reach Characterization Analysis information with 2000 and 2001 manatee mortality

data from the Florida Marine Research Institute, and other information such as information from the Service's Division of Law Enforcement regarding the adequacy of speed zone signage in certain areas.

To reduce the likelihood of incidental take associated with any new multi-slip watercraft access projects, the Interim Strategy provides four prerequisites, that: (1) adequate speed zones must exist in areas anticipated to have increased watercraft traffic as a result of the proposed development; (2) signage is adequate to ensure that boaters are aware of the existing speed zones; (3) enforcement in the vicinity of the proposed development is, or with project conservation measures will be, sufficient to prevent watercraft collisions with manatees; and (4) these measures be in place prior to implementation of the project.

In reviewing the baseline, we looked at existing speed zones, levels of enforcement, manatee aggregation areas, warmwater refugia, freshwater sources, seagrass beds, and other biological factors to determine if speed zones or levels of enforcement were sufficient to minimize the risk of manatee mortality. We focused on manatee mortality because this is the only form of take for which quantitative data are available. We assume that the available information regarding watercraft-related manatee mortality is a reliable indicator of other forms of incidental take, including injury and harassment. In areas where speed zones are appropriately designated and signed, increased enforcement provided by the State's Law Enforcement Initiative and other law enforcement efforts would improve compliance with manatee speed zones, reducing risk of watercraft collisions with manatees. The decrease in manatee-watercraft collisions would result in a stable or decreasing trend in watercraft-related manatee mortality.

Speed zones are designated by the Commission under Rule and published in the Florida Administrative Code (FAC). Types of zones designated include motorboat no entry zones (year-round), idle speed zones (year-round), idle speed zones (November 15 through April 30), slow speed zones (year-round), slow speed zones (November 15 through April 30), and maximum 25 mph/slow speed buffer zones (year-round). In addition, some speed zones include or specifically exclude navigational channels in the vicinity. In areas where manatee mortality has decreased or been stable since manatee speed zones were designated, signed, and enforced, we assumed that designation of manatee speed zones will protect manatees as required in prerequisite 1 above.

Speed zone enforcement cannot be implemented in an area unless the zones are well marked and the regulatory codes authorizing the zones are also on the signs (FAC 2001). The Florida Department of Environmental Protection (FDEP) and Florida Inland Navigational District (FIND) or West Coast Inland Navigation District (WCIND) provide installation and maintenance of speed zone signs. Manatee speed zone areas are inspected annually or after storm events by FIND or WCIND to ensure that adequate marking is present, and that no hazards to navigation exist. In areas where FIND, WCIND, the State, and/or counties regularly monitor and replace signs, we assumed that manatee speed zone signage will protect manatees as required in prerequisite 2 above.

Data from the Commission's Division of Law Enforcement were used to assess a per-slip level of current law enforcement to boater ratio in waters within Florida in the Interim Strategy. The estimated ratio of law enforcement officers to registered watercraft in Florida is one enforcement officer per 1,356 watercraft. Dividing the total number of annual work hours (2,080) by registered watercraft (1,356) yields a current average of 1.50 hours of enforcement per registered watercraft per year. This figure represents an index of the level of law enforcement potentially available throughout the State and does not reflect the total amount of law enforcement at a particular location. Enforcement of posted speed zones may be provided by the Service, the State, county sheriff's officers, city or other municipalities, and other entities with on-the-water enforcement capabilities such as the National Marine Sanctuaries Squad. The Coast Guard and the Service also provide speed zone enforcement through special task force events. We calculated the amount of law enforcement provided by the State's Law Enforcement Initiative and the Corps' estimated number of slips likely to be permitted by county to ensure that an amount of enforcement per slip currently provided by all law enforcement efforts is consistent with the Interim Strategy. The State's Initiative results in an up-front, permanent commitment of officers; administration is simplified and carried out by the State. Based on our analysis, the State's Initiative will cover approximately 370,000 watercraft access projects (= boat slips) over 32 coastal counties where manatees occur for the next ten years. On average, the construction of approximately 5,000 slips is authorized annually in Florida's waters. The State's Initiative provides for a significantly higher level of on-the-water manatee protection and law enforcement than what would be provided under our draft interim strategy. In Corps reaches where the State's law enforcement initiative and other on-the-water enforcement exceed the per slip enforcement in the

Interim Strategy, we assumed speed zone law enforcement will protect manatees as required in prerequisites 3 and 4 above.

We reviewed all of the above information to evaluate speed zone designation, signage, and enforcement currently in place for the various reaches defined by the Corps. During our review, we located areas where current speed zones are either non-existent or inappropriately designated to minimize risk of manatee-watercraft collisions as areas with increasing and/or ongoing mortality. Additional enforcement in such areas would not decrease take to a "not likely to occur" level and these were identified as "areas with inadequate protection." Implementation of additional speed zones, signage, and/or enforcement were determined to be necessary if:

1. manatee mortality data indicate on-going recovery of watercraft-related mortality manatee carcasses within the reach within the last 10 years, particularly in years since speed zones and signs have been in place with enforcement;
2. speed zones, signage, and/or enforcement levels are not provided to assume manatees are protected as described above; and/or
3. available information indicate ongoing mortality and harassment of manatees at warmwater sites.

"Areas with inadequate protection" were examined per the above criteria, to determine whether the deficiencies affected entire reaches or portion of reaches in question. For example, some areas that currently lack manatee speed zones, signage, and enforcement affect only a portion of the Corps reach and are not located along primary watercraft travel corridors. In such instances, we concluded that increases in boat traffic within certain areas would adversely affect manatees and identified that portion of the reach as an "area with inadequate protection."

Conversely, other areas currently lack adequate manatee speed zones, signage, and enforcement over entire reaches, and/or are located along primary watercraft travel corridors. In these areas, we reasonably assumed a high likelihood that increases in watercraft access anywhere within the reach or reaches would increase boat traffic, increasing risks to manatees, and designated the reach or reaches as an "area with inadequate protection."

We will continue to review new multi-slip watercraft access projects in medium and high risk counties. Additional watercraft access projects in "areas with

inadequate protection" may result in take of manatees and cannot be consistent with the final Interim Strategy. We believe that these projects would require separate review and potential authorization for incidental take under the MMPA. Should appropriate speed zones be created or modified to provide additional protection for manatees, the designation of an reach or portion of a reach as an "area with inadequate protection" could be modified to reflect a change in the baseline.

Comment 5: The Commission and other commenters disagreed with the draft interim strategy, in which the Corps and/or the applicant is required to perform the analysis on the effects of a watercraft access project on the manatee. It was recommended by one commenter that the Service should proactively solicit the comments and views of other experts who do not share the project applicant's self-interest in project approval, e.g., the Commission, Save the Manatee Club and other conservation groups, the Marine Mammal Commission, and independent scientists.

Response: ESA regulations require the Federal action agency to submit a description of the effects of the action on the listed species and/or its habitat and an analysis of any cumulative effects. The Corps may require the applicant to provide the biological evaluation. It is our responsibility to determine if all the information required by the regulations has been provided by the Federal action agency and whether the information includes the best scientific and commercial data available.

We have worked closely with the groups stated above, as well as other environmental and industry groups, that do not share the project applicant's interests. We typically coordinate with state agencies in our review of individual projects. In addition, we frequently solicit the comments and advice of conservation organizations, state and local governments, and other experts on broad manatee conservation issues (e.g., recovery plan). We will not always be able to resolve issues from such diverse groups to everyone's satisfaction. Therefore, we will continue to obtain and consider the best scientific and commercial data available in our reviews and evaluations.

Comment 6: Another commenter listed several concerns with the draft interim strategy which are discussed in the following paragraphs.

A. The first concern emphasizes that incidental take of manatees cannot occur until and unless we promulgate MMPA rules, and that the draft interim strategy is not and cannot be a mechanism for authorizing take. The commenter further

states that the draft interim strategy must be designed and must be implemented in a fashion which ensures that no Corps-permitted project proceeds which may take manatees in any fashion. The commenter agreed with the Commission that the proposed strategy encourages piecemeal approaches to establishing and posting speed zones based on the needs of a single development rather than ecosystem level needs.

Response: We have addressed these concerns in our responses to Comments 3 and 4 above.

B. The second concern is that the draft interim strategy should not be used as a means to bypass formal consultation. The commenter states that since adoption of the draft interim strategy, we have bypassed formal consultation on more than 100 Corps permits, and have not entered formal consultation on any project, and that we should abide by the four basic prerequisites set forth in the draft interim strategy for finding that incidental take from watercraft collisions is unlikely to occur as a result of a particular project.

Response: The draft interim strategy was not designed to bypass formal consultation. Using the manatee key to guide its effect determinations, the Corps has requested and we have completed consultation for a number of watercraft access projects that incorporated conservation measures consistent with the draft interim strategy in areas that meet the four prerequisites. Consultation is completed informally for projects that are "may affect, but not likely to adversely affect" with issuance of the Service's concurrence letter. Each of our concurrence letters addresses the four prerequisites which must be satisfied for us to determine that incidental take is unlikely to occur as a result of the project. The ultimate decision on whether a permit will be issued for a project after consultation with the Service rests entirely with the Corps.

In those cases when the four prerequisites cannot be met in an area or when incorporation of conservation measures into project designs will not reduce the potential for adverse effects including incidental take to an unlikely to occur level, consultation cannot be completed informally, and formal consultation will be required. We have also addressed these concerns in our response to Comments 3 and 4 above.

C. The third concern is that we should make clear in the draft interim strategy that we will, in every case, analyze whether a proposed project is inconsistent with siting policies embodied in local Manatee Protection Plans or other state and local conservation laws, and most

important, will not give concurrence on any project which is inconsistent with any such plan or ordinance designed to protect manatees. The commenter further states that, in areas of high manatee mortality and injury, water access projects should not be permitted to proceed until and unless effective "take reduction" strategies have been adopted, implemented, and are producing empirical effects in terms of actual reductions of manatee deaths and injuries.

Response: We addressed comments involving local Manatee Protection Plans and other State or local conservation laws under Comment 2 above. Regarding areas that support manatee concentrations coupled with high manatee mortality, we emphasize that, in all probability, the incorporation of conservation measures into a project design will not reduce the likelihood of incidental take to an unlikely to occur level. Hence, we cannot concur that the project is unlikely to result in incidental take of manatees.

We believe that the draft interim strategy, which identified the four prerequisites and the need for increased law enforcement to reduce incidental take to an unlikely to occur level, was a proactive take reduction strategy. As presented in the response to Comment 4, we evaluated areas that are experiencing a consistently high level of manatee mortality and injuries and identified these areas as "Areas of Inadequate Protection". In some "Areas of Inadequate Protection" areas, where speed zone designation, signage, and/or enforcement are inadequate, addressing one or all of these factors may result in "take reduction." In other words, the four prerequisites and the State's increased law enforcement initiative represent what we believe is a "take reduction strategy." In other "Areas of Inadequate Protection", where manatee and watercraft use are consistently high, there may be no strategies to reduce take and incidental take cannot be evaluated under ESA until and unless special regulations are promulgated under MMPA.

The draft interim strategy also addressed the need and provided for continual program monitoring and evaluation, and called for changes if the increase law enforcement was not resulting in reduced manatee-watercraft collisions.

D. The fourth concern relates to the formula used to calculate the amount of increased law enforcement that a new watercraft access project will have to provide in order for the project to not likely result in incidental take of manatees. The commenter states that there is no scientific evidence to support the formula. The commenter further states that the Service's approach omits, but should include considerations of "carrying capacity" (the maximum number of

boats that can be permitted in any habitat used by manatees without making adverse effects to the species inevitable, irrespective of the number of speed zones and amount of enforcement taking place).

Response: We explained in the draft interim strategy the basis for the formula used to calculate the amount of increased law enforcement that a new watercraft access project would provide in the "Determining the amount of increased law enforcement hours necessary" section of the draft interim strategy. We explained that the current statewide average of Commission officers to registered watercraft plus an additional ten percent was the basis for the formula. The rationale was that new watercraft access facilities must provide for the maintenance of the current law enforcement to watercraft ratio plus ten percent in order to assure that manatee mortality would not increase due to the increase of new watercraft resulting in less enforcement available per watercraft. We agree that there may be other methods to calculate "adequate" increased enforcement, but none have been offered. We have encouraged any entity with such information to provide that information and to work with the Service.

With regard to the "[boat] carrying capacity" issue, we do not know of a formula to calculate the maximum number of boats that can be permitted in any habitat used by manatees without making adverse effects to the species inevitable, irrespective of the number of speed zones and amount of enforcement taking place. There are currently areas with higher watercraft and manatee use that experience lower watercraft-related manatee mortality, and other areas with lower watercraft and manatee use that experience higher watercraft-related manatee mortality. We encourage individuals or organizations who have information or have developed such a "[boat] carrying capacity" formula to work with the Service. We believe that watercraft operating in a safe and legal manner in waters inhabited by manatees, particularly in manatee speed zones, are unlikely to result in the take of manatees. We support and encourage compliance with all local zoning laws or Manatee Protection Plans which protect manatees.

Comment 7: Several commenters thought the draft interim strategy applied to existing watercraft access facilities or to the replacement or repair of existing facilities or to non-watercraft access facilities such as fishing piers.

Response: We clarified during the public meetings and in the final interim strategy that the draft interim strategy applied only to new facilities that facilitate

watercraft access to Florida's waters and did not apply to existing structures or their replacement or repair.

Comment 8: Several commenters challenged the Service's involvement with the Corps' regulatory process in permitting new watercraft access projects.

Response: Section 7(a)(2) of the ESA states that any Federal agency shall, in consultation with us, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of designated critical habitat. When the Corps processes permit applications for watercraft access projects, they are required to consult with us for potential effects to manatees and their habitats.

Comment 9: Several commenters asked if there were areas where the Corps may not issue permits to construct new watercraft access facilities.

Response: In addition to the reach-by-reach analysis outlined in the response to Comment 4 above, there are consultation tools, in particular the Corps' revised manatee key and associated maps, which will identify areas where additional actions may be needed in order for the Corps to issue permits for new multi-slip watercraft access facilities. The maps are our current interpretation of the criteria used to make a determination on the individual reaches and will be reviewed and revised periodically. As the maps are revised, they will be available at: http://verobeach.fws.gov/manatee_issues/interim_strategy.htm

The manatee key identifies areas with "In-water Construction Windows" and "Areas with Inadequate Protection." In some of these areas, permits may be issued with special conditions that remove the likelihood of take of manatees. For example, a new facility proposed within an In-Water Construction Window area could be permitted only if construction was proposed outside of the window.

Areas with Inadequate Protection, fall into one of two categories; designation based on a lack of one of the four prerequisites, or designation because the prerequisites will not reduce incidental take to an unlikely to occur level. If inadequate speed zones, signage, or enforcement are corrected for areas designated because of a deficiency, the Corps could initiate consultation with us. If consultation is initiated, we will evaluate the specific conditions in an area expected to be affected by the project, as well as the project design, in determining whether the project is likely to result in incidental take due to watercraft collisions.

The four basic prerequisites necessary to ensure that incidental take is unlikely to occur are: (1) adequate speed zones exist in the areas reasonably anticipated to have increased watercraft traffic as a result of the project; (2) signage in these areas is adequate to ensure that boaters are aware of speed zones; (3) speed zone enforcement in these areas sufficient to prevent watercraft collisions from occurring as a result of the project; and (4) these measures must be in place prior to project implementation. If these prerequisites are met, we may find that a new facility would be unlikely to result in the incidental take of manatees. In areas designated because the four prerequisites will not reduce incidental take to an unlikely to occur level, we cannot provide an incidental take statement to the Corps for a facility under ESA until and unless incidental take is authorized under MMPA.

A special regulation promulgated under MMPA could authorize incidental take that has a negligible effect on reproduction. We would then consider this information to determine if incidental take could be authorized under ESA in areas currently designated because the four prerequisites will not reduce incidental take to an unlikely to occur level. An Advance Notice of Proposed Rulemaking was published in the Federal Register on March 12, 2001 (Volume 66, Number 48, pages 14352-14354) advising the public we are initiating our process for developing these Incidental Take Regulations. Public comments were requested and received on the advance notice process at that time. There will also be opportunity for public comment on the proposed regulations once they are formulated and published in the Federal Register, but before they are finalized.

If we anticipate that incidental take may occur as a result of a project, we must determine whether or not that incidental take is likely to jeopardize the continued existence of the species. For such projects which we determine will not result in jeopardy or adverse modification of critical habitat, yet in our opinion are likely to result in the incidental take of manatees, we intend to exercise our authority under section 7 of the ESA to issue biological opinions that make clear that the project may contribute to incidental take of manatees and that incidental take may not be exempted in the absence of MMPA incidental take regulations. Subsequently, it is the Corps' responsibility to decide whether or not to issue a permit for a particular project.

Comment 10: Several commenters asked why the draft interim strategy wasn't considering all forms of incidental take.

Response: In determining whether to concur with a not likely to adversely affect determination, or in issuing a biological opinion addressing the potential for incidental take, we must consider all potential forms of incidental take. Watercraft-related mortality is the most significant factor that we can effectively address at this time to aid in manatee recovery. The purpose of the interim strategy is to focus on the potential for manatee-watercraft collisions, but we must and will continue to consider all other forms of potential effects to manatees in the consultation process.

Comment 11: Several commenters felt that the draft interim strategy was inequitable in that new watercraft access projects were responsible for additional law enforcement rather than distributing the cost of increased enforcement among all boaters. On this issue, a number of commenters suggested alternatives for more equitable means of providing increased law enforcement, such as increased vessel registration fees.

Response: We believe that increased manatee speed zone enforcement is the primary conservation measure through which proposed projects could reduce the incidental take associated with watercraft collisions to an unlikely to occur level. We recognize that increased vessel registration fees may be another way to accomplish this goal. At the time, the draft interim strategy represented the only mechanism by which some applicants could move forward with their projects in the absence of incidental take regulations. However, the State has come forward with an initiative that has significantly improved law enforcement in manatee waters and we have determined that the contribution portion of the interim strategy is no longer necessary.

Comment 12: Other commenters questioned whether the contributions were sufficient to adequately fund increased law enforcement.

Response: Based on our analysis of existing levels of law enforcement provided by the State and the amount of increased enforcement needed to ensure that a new watercraft access project would not likely cause the incidental take of manatees, we believe that the contribution amount is sufficient to provide the increase in on the water enforcement. With the State's law enforcement initiative, we have determined that the contribution portion of the interim strategy is no longer necessary.

Comment 13: A number of commenters stated that the draft interim strategy was a form of extortion in that funds

were required in proposing an appropriate conservation measure as part of an applicant's project design.

Response: We believe that the increased presence of on-the-water enforcement is the single most effective means to accomplishing manatee conservation. To that end, we developed two voluntary options by which increased enforcement could be provided as part of an applicant's project design: one option was the establishment of an agreement or contract with a local law enforcement agency and the other option was for applicants to contribute to the Manatee Conservation Fund. Without either of these two options incorporated as part of a project's design, it was our opinion that the project was likely to result in the incidental take of manatees. Because manatees are also protected by the MMPA, we cannot exempt incidental take for manatees under ESA, until and unless incidental take regulations are promulgated under MMPA. However, with the State's Law Enforcement Initiative, we have determined that the contribution portion of the interim strategy is no longer necessary.

Comment 14: Several commenters believed that the draft interim strategy requires the preparation of an Environmental Assessment or an Environmental Impact Statement under the National Environmental Policy Act.

Response: This action is categorically excluded in accordance with NEPA requirements [per 516 DM 6, Appendix 1.4(A) (3)].

Comment 15: Several commenters questioned why the draft interim strategy was needed since the manatee population was increasing.

Response: We are pleased with this year's manatee count and see these numbers as indicative of the success of many long-term conservation efforts. However, collisions with watercraft continue to impact manatees. Whether or not the manatee population grows or declines is primarily dependent on the survival rate of adult manatees. The interim strategy is designed to help ensure sufficient adult survival and aid in recovery of this species. The State's Law Enforcement Initiative will also help in reaching these goals.

Comment 16: Several commenters asked if the increase in manatee mortality was the reason for the draft interim strategy.

Response: Watercraft-related mortality is the number one cause of human-related deaths. The interim strategy is

our guidance to any person or organization regarding conservation measures that could be incorporated into watercraft access facility designs such that, in some cases, projects would not likely cause "incidental take" of the manatee. The strategy is defined as an "interim" strategy because it is designed to provide guidance relating to the indirect effects of watercraft access projects on manatees only during the time period while "incidental take" regulations under MMPA are being developed. The draft interim strategy would have offered us an opportunity to implement sound, effective risk-reduction management actions, such as increased manatee speed zone enforcement, during the time period while incidental take regulations under the MMPA are being promulgated. Adult survival rates are one of the key criteria we consider in gauging success of our recovery efforts. Increased manatee speed zone enforcement also is expected to have a significant impact on overall adult manatee survival rates.

Comment 17: Many commenters asked, if 25 percent of manatee mortality is human-related, why the Service is not doing anything to reduce the 75 percent of manatee mortality that was not human-related.

Response: We are aware that the largest percentage of manatee deaths can be attributed to other categories such as natural or perinatal or even undetermined causes. We also recognize that these types of manatee mortality cannot be directly controlled by agency actions. Indeed, included in the remaining 75 percent are deaths due to natural causes. However, one effective approach to recover the manatee is to control human-related mortality. See the response to Comment 18 below.

Comment 18: Several commenters asked what is the long-term strategy for manatee conservation.

Response: We believe that manatee speed zone enforcement is the most effective means of conserving the manatee by reducing adult mortality. However, it is only part of the total recovery needs of the manatee. Numerous conservation activities are ongoing to recover the manatee, such as implementation of the recovery plan and any subsequent modifications, development of incidental take regulations under the MMPA, review of federally-designated manatee sanctuaries and refuges, adjustment of speed zone locations, assessment of deregulation of power plants as warmwater refugia, and assessment of the effectiveness of law enforcement and public awareness efforts in decreasing or eliminating watercraft-related manatee mortality.

State of Florida's Manatee Law Enforcement Initiative

For several months, we have coordinated with the Governor's Office regarding the State's participation in manatee protection measures. Governor Jeb Bush informed us in writing on May 29, 2001, that the 2001 Florida Legislature approved 25 additional law enforcement positions to be deployed throughout those coastal counties where manatees are at a high risk of death or injury due to human-related causes. In addition to these new officers, Governor Bush's letter also states that 23 desk-assigned officers will be redeployed to water patrol activities. The Governor's letter further states that, for 2001, increased manatee speed zone enforcement efforts by the State resulted in reversing a 3-year trend of increasing manatee deaths due to watercraft collisions for the same period prior to 2001. Coupled with the increase in enforcement, the Governor and the Cabinet voted on July 25, 2000, not to approve new or expanding marina facilities in those counties that do not have an approved Manatee Protection Plan. The letter concluded with the Governor requesting us to withdraw the draft interim strategy in light of the fact that additional and adequate enforcement necessary to protect manatees has been provided by the State of Florida.

Additional discussions with the Governor's Office indicate that the Commission, has reassigned 23 law enforcement officers and hired 25 additional officers to increase and improve enforcement of manatee protection laws, including manatee speed zones. The Commission has also reorganized 313 existing law enforcement officers in addition to the increase in officers listed above to refocus a portion of their activities toward manatee protection. Furthermore, the State has allocated \$2 million for those officers willing to work overtime, which translates into additional hours of manatee protection. Finally, the State is also considering adding a number of new officers for manatee protection next year. Hence, the State proposed that we withdraw the draft interim strategy because the increase in law enforcement that would be provided in accordance with its implementation has been provided for up-front by the State's Initiative.

Final Interim Strategy

Introduction

This final interim strategy represents our guidance regarding conservation measures that should be incorporated into watercraft access facility designs in order that, in some cases, projects would not likely cause incidental take of the Florida manatee.

We believe that the State's Initiative removes the need for implementation of the contributions for increased law enforcement. Therefore, we have removed the contributions for law enforcement from our final interim strategy. The State's Initiative results in an up-front, permanent commitment of officers; administration is simplified and carried out by the State. Based on our analysis, the State's Initiative will cover approximately 370,000 watercraft access projects (= boat slips) over 32 coastal counties where manatees occur for the next ten years. On average, the construction of approximately 5,000 slips is authorized annually in Florida's waters. The State's Initiative provides for a significantly higher level of on-the-water manatee protection and law enforcement than what would be provided under our draft interim strategy.

We also believe that the State's Initiative will effectively and, under today's conditions, adequately staff manatee-inhabited waters with the necessary allocation of enforcement officers, thereby eliminating the need for applicants of watercraft access projects to either establish an agreement or contract with a local law enforcement agency or contribute to the Manatee Conservation Fund as options in providing increased enforcement as part of their project design.

Our draft interim strategy would have resulted in incremental and temporary implementation of increased enforcement as new watercraft access projects were permitted. With the State's Initiative, law enforcement will be provided up-front and on a guaranteed annual basis versus a temporally distributed deployment of efforts under the draft interim strategy. We believe this increased early-on deployment prior to MMPA regulations promulgation is far superior to the phased-in deployment that would have occurred under the draft interim strategy. The State's Initiative will result in a more effective means to address the indirect effects of watercraft access development on manatees.

Interim Strategy

This final interim strategy applies to any new watercraft access activity that could result in adverse effects on manatees. Specific manatee conservation measures proposed as part of a project must be found to reduce to an unlikely to occur level any adverse effects associated with increased access. Specific conservation measures proposed for any project must be based on a biological evaluation submitted by the applicant or the action agency. This biological evaluation must include a description of the proposed action; a description of manatee habitat and any

manatee critical habitat affected by the proposed action; a thorough analysis of the effects of the proposed action on manatees, manatee habitat, and manatee critical habitat. From this biological evaluation, individuals, local governments, State agencies, and Federal agencies can develop acceptable manatee conservation measures(s). Once the measures have been developed, we can review and provide additional advice as necessary to ensure that the proposed project will reduce the potential for watercraft collisions to an unlikely to occur level.

The Corps will provide a copy of this final interim strategy to the applicant for use in designing their proposed action to comply with the provisions of the ESA. The Corps will provide a letter to us with a complete project description, including any conservation measures, and request that we review the proposed action for compliance with the ESA. The specific conservation measures necessary in any given situation will vary according to mortality risk in the area of the proposed project.

In developing the interim strategy, we assessed regional manatee populations, manatee ecology, and historic watercraft-related manatee mortality to determine relative risk of watercraft-related manatee losses and have delineated three relative risk areas throughout Florida. After examining manatee mortality data from 1974 through 2000, including five-year mortality increments and watercraft-related mortality trends, we have categorized these risk areas as high, medium and low (Table 1).

Table 1. High, medium, and low risk areas by County in Florida.

High Risk Area		Medium Risk Area		Low Risk Area	
Subpopulati	County	Subpopulati	County	Subpopulati	County
Atlantic	Duval*	Upper St. Johns	St. Johns*	Atlantic	Monroe**
	Clay*		Putnam		Okeechobee
	St. Johns*		Lake	Southwest	DeSoto
	Volusia*		Seminole	Northwest	Jefferson
	Brevard		Volusia*		Franklin
	Indian	Atlantic	Nassau		Gulf
	Martin		Clay*		Bay
	Palm Beach		Flagler		Walton
	Broward		St. Lucie		Okaloosa
	Miami-Dade	Southwest	Glades		Santa Rosa
	Monroe**		Hendry		Escambia
Southwest	Collier		Pinellas		
	Lee	Northwest	Pasco		
	Charlotte		Hernando		
	Sarasota		Levy		
	Manatee		Dixie		
	Hillsboroug		Taylor		
Northwest	Citrus		Wakulla		

* In Northeast Florida, the portions of the St. Johns River north (downstream) of a line drawn across the river at the Shands Bridge (State Route 16) in St. Johns County are included with the high risk area of Duval County. The J. Turner Butler (Sollee) Bridge (State Route 202) across the Atlantic Intracoastal Waterway in southeast Duval County is the demarcation between the high risk area to the north of the bridge and the medium risk area to the south. The Nassau River and its tributaries in Duval County are medium risk areas. The coastal waterways of Volusia County (including the Tomoka River) are in the high risk category, and the St. Johns River in Volusia, Lake and Seminole Counties are in the medium risk category.

** The area in Monroe County to the east and north of the Seven Mile Bridge is considered a high risk region for manatees; whereas the area west and south of the Seven Mile Bridge is considered a low risk region for manatees.

We defined high risk areas (= counties) as those averaging one or more watercraft-related manatee mortalities per year during the past ten years; medium risk areas averaged less than one, but more than zero, watercraft-related manatee mortality per year; and low risk (the remainder of the manatee's range in the southeastern U.S.) had no documented watercraft-related mortality.

Our final interim strategy utilizes high, medium and low risk counties coupled with the Corps' revised manatee key and associated maps to identify areas where the Service believes there is adequate manatee protection. For all multi-slip projects in high and medium risk counties, we will evaluate the specific conditions in the area expected to be affected by the project, using a Reach-by-Reach analysis, in determining whether the project is likely to contribute to incidental take due to watercraft collisions. These maps identify areas or reaches that we believe have adequate or inadequate protection. These maps have been developed by us utilizing the reach by reach analysis presented below. The maps are our current interpretation of the criteria used to make a determination on the individual reaches and will be reviewed and revised periodically. The current maps, and as these maps are revised, will be available at:

http://verobeach.fws.gov/manatee_issues/interim_strategy.htm or may be obtain from our Jacksonville, Florida Field Office (telephone 904/232-2580) or our Vero Beach, Florida Field Office (telephone 561/562-3909).

Reach by Reach Analysis

To analyze the effects of watercraft access projects on manatees, we reviewed the baseline conditions for each of the manatee subpopulations by county and by "reach" based on a combination of information available to us including the Corps' Reach Characterization Analysis Geographic Information System (GIS) database. We used counties as a basic geographic analysis area because many factors important to manatee protection are provided at the county level. Manatee Protection Plans are produced by counties, manatee speed zones are designated by the State with county participation or by counties on a county level, and county sheriff's departments provide enforcement within county boundaries. These factors make county-by-county and reach-by-reach review the most logical and manageable way to analyze data and provide recommended courses of action. This county-by-county and reach-by-reach review approach provides a more holistic evaluation of speed zones than a piecemeal project-by-project review.

To evaluate the adequacy of existing manatee speed zones throughout Florida, we used information from the Reach Characterization Analysis combined with the most current information available regarding manatee use, manatee habitat, manatee mortality and harassment. The Corps compiled existing data relevant to the evaluation of the potential effects of watercraft access projects on manatees. The information contained in the Reach Characterization Analysis included manatee use data such as aerial surveys

and radio telemetry; manatee habitat characteristics such as warmwater sites, seagrass distributions, and bathymetry; human use characteristics such as relative dock densities, boat densities, and navigation channels; and existing manatee protection measures (boating speed zones). Throughout Florida, the Corps defined 80 "reaches" based on manatee use, manatee habitat characteristics, and human use characteristics. The Corps compiled this information into its GIS database.

In some areas, we feel that changes of the Corps reach boundaries would provide a better characterization of the effects of regulated activities on manatees, and our analysis reflects these recommendations. We view the Reach Characterization Analysis as a dynamic process, and will continue to recommend changes to Corps reaches based on new information regarding manatees, boating activities, and the interaction of manatees and boating that affect manatees. To ensure the use of the best scientific and commercial data available, we supplemented the Reach Characterization Analysis information with 2000 and 2001 manatee mortality data from the Florida Marine Research Institute, and other information such as information from the Service's Division of Law Enforcement regarding the adequacy of speed zone signage in certain areas.

To reduce the likelihood of incidental take associated with any new multi-slip watercraft access projects, the Interim Strategy provides four prerequisites, that: (1) adequate speed zones must exist in areas anticipated to have increased watercraft traffic as a result of the proposed development; (2) signage is adequate to ensure that boaters are aware of the existing speed zones; (3) enforcement in the vicinity of the proposed development is, or with project conservation measures will be, sufficient to prevent watercraft collisions with manatees; and (4) these measures be in place prior to implementation of the project.

In reviewing the baseline, we looked at existing speed zones, levels of enforcement, manatee aggregation areas, warmwater refugia, freshwater sources, seagrass beds, and other biological factors to determine if speed zones or levels of enforcement were sufficient to minimize the risk of manatee mortality. We focused on manatee mortality because this is the only form of take for which quantitative data are available. We assume that the available information regarding watercraft-related manatee mortality is a reliable indicator of other forms of incidental take, including injury and harassment. In areas where speed zones are appropriately designated and signed, increased enforcement provided by the State's Law Enforcement Initiative and other law enforcement efforts would improve

compliance with manatee speed zones, reducing risk of watercraft collisions with manatees. The decrease in manatee-watercraft collisions would result in a stable or decreasing trend in watercraft-related manatee mortality.

Speed zones are designated by the Commission under Rule and published in the Florida Administrative Code (FAC). Types of zones designated include motorboat no entry zones (year-round), idle speed zones (year-round), idle speed zones (November 15 through April 30), slow speed zones (year-round), slow speed zones (November 15 through April 30), and maximum 25 mph/slow speed buffer zones (year-round). In addition, some speed zones include or specifically exclude navigational channels in the vicinity. In areas where manatee mortality has decreased or been stable since manatee speed zones were designated, signed, and enforced, we assumed that designation of manatee speed zones will protect manatees as required in prerequisite 1 above.

Speed zone enforcement cannot be implemented in an area unless the zones are well marked and the regulatory codes authorizing the zones are also on the signs (FAC 2001). The Florida Department of Environmental Protection (FDEP) and Florida Inland Navigational District (FIND) or West Coast Inland Navigation District (WCIND) provide installation and maintenance of speed zone signs. Manatee speed zone areas are inspected annually or after storm events by FIND or WCIND to ensure that adequate marking is present, and that no hazards to navigation exist. In areas where FIND, WCIND, the State, and/or counties regularly monitor and replace signs, we assumed that manatee speed zone signage will protect manatees as required in prerequisite 2 above.

Data from the Commission's Division of Law Enforcement were used to assess a per-slip level of current law enforcement to boater ratio in waters within Florida in the Interim Strategy. The estimated ratio of law enforcement officers to registered watercraft in Florida is one enforcement officer per 1,356 watercraft. Dividing the total number of annual work hours (2,080) by registered watercraft (1,356) yields a current average of 1.50 hours of enforcement per registered watercraft per year. This figure represents an index of the level of law enforcement potentially available throughout the State and does not reflect the total amount of law enforcement at a particular location. Enforcement of posted speed zones may be provided by the Service, the State, county sheriff's officers, city or other municipalities, and other entities with on-the-water enforcement capabilities such as the National Marine Sanctuaries Squad. The Coast Guard and the Service also provide speed zone enforcement through special task force

events. We calculated the amount of law enforcement provided by the State's Law Enforcement Initiative and the Corps' estimated number of slips likely to be permitted by county to ensure that an amount of enforcement per slip currently provided by all law enforcement efforts is consistent with the Interim Strategy. The State's Initiative results in an up-front, permanent commitment of officers; administration is simplified and carried out by the State. Based on our analysis, the State's Initiative will cover approximately 370,000 watercraft access projects (= boat slips) over 32 coastal counties where manatees occur for the next ten years. On average, the construction of approximately 5,000 slips is authorized annually in Florida's waters. The State's Initiative provides for a significantly higher level of on-the-water manatee protection and law enforcement than what would be provided under our draft interim strategy. In Corps reaches where the State's law enforcement initiative and other on-the-water enforcement exceed the per slip enforcement in the Interim Strategy, we assumed speed zone law enforcement will protect manatees as required in prerequisites 3 and 4 above.

Protection Areas

We reviewed all of the above information to evaluate speed zone designation, signage, and enforcement currently in place for the various reaches defined by the Corps. During our review, we located areas with adequate and inadequate protection. Areas where current speed zones are either non-existent or inappropriately designated to minimize risk of manatee-watercraft collisions as areas with increasing and/or ongoing mortality. Additional enforcement in such areas would not decrease take to a "not likely to occur" level and these were identified as "areas with inadequate protection." Implementation of additional speed zones, signage, and/or enforcement were determined to be necessary if:

1. manatee mortality data indicate on-going recovery of watercraft-related mortality manatee carcasses within the reach within the last 10 years, particularly in years since speed zones and signs have been in place with enforcement;
2. speed zones, signage, and/or enforcement levels are not provided to assume manatees are protected as described above; and/or
3. available information indicate ongoing mortality and harassment of manatees at warmwater sites.

"Areas with inadequate protection" were examined per the above criteria, to determine whether the deficiencies affected entire reaches or portion of reaches in question. For example, some areas that currently lack manatee speed zones, signage, and enforcement affect only a portion of the Corps reach and are not located along primary watercraft travel corridors. In such instances, we concluded that increases in boat traffic within certain areas would adversely affect manatees and identified that portion of the reach as an "area with inadequate protection."

Conversely, other areas currently lack adequate manatee speed zones, signage, and enforcement over entire reaches, and/or are located along primary watercraft travel corridors. In these areas, we reasonably assumed a high likelihood that increases in watercraft access anywhere within the reach or reaches would increase boat traffic, increasing risks to manatees, and designated the reach or reaches as an "area with inadequate protection."

Medium and High Risk Counties

We will continue to review new multi-slip watercraft access projects in medium and high risk counties. Additional watercraft access projects in "areas with inadequate protection" may result in take of manatees and cannot be consistent with the final Interim Strategy. We believe that these projects would require separate review and potential authorization for incidental take under the MMPA. Should appropriate speed zones be created or modified to provide additional protection for manatees, the designation of an reach or portion of a reach as an "area with inadequate protection" could be modified to reflect a change in the baseline.

In "Areas with Inadequate Protection" designated based on a lack of one of the four prerequisites, consultation may be initiated between the Corps and us if inadequate speed zones, signage, or enforcement are corrected. If consultation is initiated, we will evaluate, using a Reach-by-Reach analysis already conducted by us as well as any new information that becomes available during project review, the specific conditions of an area expected to be affected by the project to determine whether the project is likely to result in incidental take. The four basic prerequisites necessary to ensure that incidental take is unlikely to occur are: (1) adequate speed zones; (2) adequate signage; (3) sufficient speed zone enforcement to prevent watercraft collisions from occurring as a result of the project; and (4) these measures must be in place prior to project implementation. If these prerequisites are met, we may find that a new facility would be unlikely to result in the

incidental take of manatees. If the four prerequisites cannot be met, we cannot reasonably conclude that the project is unlikely to result in incidental take.

In "Areas with Inadequate Protection" designated because the prerequisites will not reduce incidental take to an unlikely to occur level, we cannot provide an incidental take statement for a facility under ESA until and unless incidental take is authorized under MMPA unless we determine through the review process that conditions have changed. A special regulation promulgated under MMPA could authorize incidental take that has a negligible effect on reproduction. We would then consider this information to determine if incidental take could be authorized under ESA in areas currently designated because the four prerequisites will not reduce incidental take to an unlikely to occur level. However, it is the Corps' responsibility to decide whether or not to issue a permit.

Low Risk Counties

Since projects in low risk counties have no history of any watercraft-related manatee mortality, we find that proposed projects in these areas are unlikely to contribute to the incidental take of manatees through watercraft collisions. As new information becomes available, we will continue to assess whether any proposed project in manatee habitat is likely to result in incidental take through watercraft collisions or have any adverse effects on the species.

Single Family Docks

Single family docks (3 slips or less) were considered in the draft interim guidance, after contribution for increased law enforcement to reduce incidental take associated with watercraft access. In the final interim strategy, they will be considered without a contribution, due to the overall increase in law enforcement measures implemented by the State's Initiative. We believe that this increased law enforcement effort, will allow these single family projects, to go forward provided, we continue to monitor their cumulative effects on the manatee in all reaches using best available science and the commitment to make future changes to this process if necessary. To facilitate this review process, we will receive at least quarterly reports on permits issued for watercraft access projects, including single family docks.

We continue to encourage the State of Florida, the Corps, and other Federal, tribal, local, and private entities to seek incidental take authorization for their

watercraft-related activities that are likely to cause the incidental take of manatees, as defined under the ESA and MMPA.

Monitoring Implementation and Effectiveness of the State's Initiative

The effectiveness of the State's law enforcement efforts will be evaluated on a continuing basis by comparing watercraft-related manatee mortality data in areas to previous rates of mortality. We will pay particular attention to data from areas where law enforcement has increased. Although review of program implementation and evaluation of manatee mortality and injury are continuous processes, the manatee mortality risk areas will be assessed at one-year intervals coinciding with our review of the State's publication of annual manatee mortality data. If we and the Commission determine at any time that these enforcement efforts are not meeting their intended objectives, then the agencies will coordinate their efforts to rectify the situation. Monitoring implementation and effectiveness will determine the need to continue, to extend the scope of, to change elements of, and/or to add new components to the enforcement.

Author

The primary author of this document is Kalani Cairns (see ADDRESSES section).

Authority

The authority for this action is section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*)

Dated: _____

Signed: _____
 Sam D. Hamilton
 Regional Director